

# Metric Conversions

mega	kilo	hecto	deca	base	deci	centi	milli	micro
M	k	h	da	g, L, m	d	c	m	$\mu$
$10^6$	$10^3$	$10^2$	$10^1$	$10^0$	$10^{-1}$	$10^{-2}$	$10^{-3}$	$10^{-6}$
					$(\frac{1}{10^1})$	$(\frac{1}{10^2})$	$(\frac{1}{10^3})$	

$\times 10^2$  (move dec right)  $\rightarrow$

$\leftarrow \div 10^2$  (move dec left)

29.  $4008g = 4008000 \text{ mg}$  (move the decimal)

$x \text{ mg} = 4008g \left( \frac{1000 \text{ mg}}{1g} \right)$  (conversion factor) (factor labelling)

$x \text{ mg} = 4008000 \text{ mg}$

30.  $48 \text{ mL} = 0.048 \text{ L}$  (move the decimal)

$x \text{ L} = 48 \text{ mL} \left( \frac{1 \text{ L}}{1000 \text{ mL}} \right)$  (factor labelling)

$x \text{ L} = 0.048 \text{ L}$

$48 \text{ mL} = 48 \times 10^{-3} \text{ L}$  (going to base unit)  
 $= 4.8 \times 10^{-2} \text{ L}$

31.  $23.9 \text{ cm}$

32.  $38000000 \text{ mg}$